Virtual Hosting With PureFTPD And MySQL (Incl. Quota And Bandwidth Management) On Mandriva 2008 Spring

Want to support HowtoForge? Become a subscriber!

Submitted by falko (Contact Author) (Forums) on Sun, 2008-04-20 17:39. :: Mandriva | FTP

Tweet

Virtual Hosting With PureFTPD And MySQL (Incl. Quota And Bandwidth Management) On Mandriva 2008 Spring

Version 1.0
Author: Falko Timme <ft [at] falkotimme [dot] com>
Last edited 04/11/2008

This document describes how to install a PureFTPD server that uses virtual users from a MySQL database instead of real system users. This is much more performant and allows to have thousands of ftp users on a single machine. In addition to that I will show the use of quota and upload/download bandwidth limits with this setup. Passwords will be stored encrypted as MD5 strings in the database.

For the administration of the MySQL database you can use web based tools like phpMyAdmin which will also be installed in this howto. phpMyAdmin is a comfortable graphical interface which means you do not have to mess around with the command line.

This tutorial is based on Mandriva 2008 Spring (Mandriva 2008.1). You should already have set up a basic Mandriva 2008 Spring system, for example as described in the first six chapters of this tutorial: http://www.howtoforge.com/perfect-server-mandriva-2008.1

This howto is meant as a practical guide; it does not cover the theoretical backgrounds. They are treated in a lot of other documents in the web.

This document comes without warranty of any kind! I want to say that this is not the only way of setting up such a system. There are many ways of achieving this goal but this is the way I take. I do not issue any guarantee that this will work for you!

1 Preliminary Note

In this tutorial I use the hostname server1.example.com with the IP address 192.168.0.100. These settings might differ for you, so you have to replace them where appropriate.

2 Install MySQL And phpMyAdmin

This can all be installed with one single command:

```
urpmi MySQL MySQL-client phpmyadmin
```

By default, networking is not enabled in Mandriva 2008 Spring's MySQL package. We can change this by commenting out the line `skip-networking` in `/etc/my.cnf`:

```
vi /etc/my.cnf
```

```
[...]
# Don't listen on a TCP/IP port at all. This can be
# if all processes that need to connect to mysqld
# All interaction with mysqld must be made via Unix
# Note that using this option without enabling name
```
Afterwards, we create the system startup links for MySQL and Apache...

```
chkconfig mysqld on
chkconfig httpd on
```

... and start both services:

```
/etc/init.d/mysqld start
/etc/init.d/httpd restart
```

Create a password for the MySQL user root (replace yourrootsqlpassword with the password you want to use):

```
mysqladmin -u root password yourrootsqlpassword
mysqladmin -h server1.example.com -u root password yourrootsqlpassword
```

### 3 Install PureFTPd With MySQL Support

Mandriva’s PureFTPd package supports various backends, such as MySQL, PostgreSQL, LDAP, etc. We install it like this:

```
urpmi pure-ftpd pure-ftpd-anon-upload pure-ftpd-anonymous
```

Then we create an ftp group (ftpgroup) and user (ftpuser) that all our virtual users will be mapped to. Replace the group- and userid with a number that is free on your system:

```
groupadd -g 2001 ftpgroup
useradd -u 2001 -s /bin/false -d /bin/null -c "pureftpd user" -g ftpgroup ftpuser
```

### 4 Create The MySQL Database For PureFTPd

Now we create a database called pureftpd and a MySQL user named pureftpd which the PureFTPd daemon will use later on to connect to the pureftpd database:

```
CREATE DATABASE pureftpd;
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP ON pureftpd.* TO 'pureftpd'@'localhost'
IDENTIFIED BY 'ftpdpass';
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP ON pureftpd.* TO 'pureftpd'@'localhost.localdomain' IDENTIFIED BY 'ftpdpass';
FLUSH PRIVILEGES;
```

Replace the string ftpdpass with whatever password you want to use for the MySQL user pureftpd. Still on the MySQL shell, we create the database table we need (yes, there is only one table!):

```
USE pureftpd;
CREATE TABLE ftpd {
User varchar(16) NOT NULL default '',
status enum('0','1') NOT NULL default '0',
Password varchar(64) NOT NULL default '',
Uid varchar(11) NOT NULL default '-1',
Gid varchar(11) NOT NULL default '-1',
Dir varchar(128) NOT NULL default '',
ULBandwidth smallint(5) NOT NULL default '0',
DLBandwidth smallint(5) NOT NULL default '0',
comment tinytext NOT NULL,
ipaccess varchar(15) NOT NULL default '',
QuotaSize smallint(5) NOT NULL default '0',
QuotaFiles int(11) NOT NULL default 0,
PRIMARY KEY (User),
UNIQUE KEY User (User)
} TYPE=MyISAM;
```

 quit;
5 Configure PureFTPd

Edit /etc/pure-ftpd/pure-ftpd.conf and make sure that the ChrootEveryone, MySQLConfigFile, and CreateHomeDir lines are enabled and look like this:

```bash
vi /etc/pure-ftpd/pure-ftpd.conf

[...] ChrootEveryone yes
[...] MySQLConfigFile /etc/pure-ftpd/pureftpd.conf
[...] CreateHomeDir yes
```

As you may have noticed, with the `quit;` command we have left the MySQL shell and are back on the Linux shell.

BTW, (I'm assuming that the hostname of your ftp server system is `server1.example.com`) you can access phpMyAdmin under `http://server1.example.com/phpmyadmin/` (you can also use the IP address instead of `server1.example.com`) in a browser and log in as the user `pureftpd`. Then you can have a look at the database. Later on you can use phpMyAdmin to administrate your PureFTPd server.

Make sure that the `ChrootEveryone` setting will make PureFTPd chroot every virtual user in his home directory so he will not be able to browse directories and files outside his home directory. The `CreateHomeDir` line will make PureFTPd create a user's home directory when the user logs in and the home directory does not exist yet.

Then we edit `/etc/pure-ftpd/pureftpd-mysql.conf`. It should look like this:

```bash
cp /etc/pure-ftpd/pureftpd-mysql.conf /etc/pure-ftpd/pureftpd-mysql.conf_orig
vi /etc/pure-ftpd/pure-ftpd-mysql.conf
```

```bash
MySQLSocket /var/lib/mysql/mysql.sock
#MYSQLServer localhost
#MYSQLPort 3306
MYSQLUser pureftpd
MYSQLPassword ftpdpass
MYSQLDatabase pureftpd
#MYSQLCrypt md5, cleartext, crypt() or password()
MYSQLCrypt md5
MySQLGetPW SELECT Password FROM ftppass WHERE User=""
MySQLGetUID SELECT Uid FROM ftppass WHERE User=""
MySQLGetGID SELECT Gid FROM ftppass WHERE User=""
MySQLGetDir SELECT Dir FROM ftppass WHERE User=""
MySQLGetBandwidthDL SELECT DLBandwidth FROM ftppass WHERE User=""
MySQLGetBandwidthUL SELECT ULBandwidth FROM ftppass WHERE User=""
```

Make sure that you replace the string `ftppass` with the real password for the MySQL user `pureftpd` in the line `MySQLGetPW`. Please note that we use `md5` as `MYSQLCrypt` method, which means we will store the users' passwords as an MD5 string in the database which is far more secure than using plain text passwords!

Now we start PureFTPd:

```bash
/etc/init.d/pure-ftpd start
```

Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On Mandriva 2008 Spring - Page 2
Related Tutorials

- Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On Mandriva 2007 Spring
- Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On Ubuntu 7.10 (Gutsy Gibbon)
- Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On Debian Etch
- Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On CentOS 5.0

⚠ Please do not use the comment function to ask for help! If you need help, please use our forum. Comments will be published after administrator approval.